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PERCEPTIONS OF COVID-19, INFORMATION SEEKING BEHAVIOR, AND POLITICAL ORIENTATION

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Abstract

COVID-19 was declared an international pandemic in March 2020 and infected millions of people globally in less than six months. Research suggests that a large amount of both accurate and misinformation exists on the pandemic, and it would be expected that an individual's political orientation would influence their perception of the virus and the information that they endorse. Based on past research, it would be expected that both liberals and conservatives would be equally concerned about the COVID-19 pandemic and endorse similar measures. However, Republicans downplayed the pandemic and were more likely to consider it a hoax, while Democrats exaggerated the pandemic and were more likely to advocate for excessive measures. I asked participants to complete various measures related to their political ideology and beliefs about the COVID-19 pandemic. 3 variables were tested as potential mediators and moderators that could explain this relationship. The results suggest that selective exposure to attitude consistent information mediated the relationship between political ideology and perceptions of the pandemic. Behavioral immune system sensitivity and disgust reappraisal where also tested as potential pathways, but the results were not significant. These results suggest that selective exposure is a major factor in determining an individual's perception of the COVID-19 pandemic.

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COVID-19 and Information Availability

COVID-19 emerged as a novel coronavirus in China in late 2019 and was declared an international pandemic in March 2020 by the World Health Organization (WHO) after spreading to many countries around the world (World Health Organization, 2020). In less than half a year, millions of people contracted the virus and hundreds of thousands died globally (John Hopkins University, 2020). In the United States, various measures were implemented to combat the virus, with some states implementing more aggressive measures than others, such as closing all non-essential businesses for at least a month to flatten the curve. Information from The WHO, Center for Disease Control, White House Coronavirus Task Force, and governors of all 50 states disseminated information daily to detail the current prevalence of the disease, the predicted spread of the disease in the near future, and guidelines that should be followed to slow the spread.

Despite the effort to disseminate credible information to the public about COVID-19, a large amount of misinformation was spread on social media that both exaggerated and understated the severity of the pandemic (Yang et al., 2020), causing the WHO to declare the problem an "infodemic" (Zarocostas 2020). While some forms of misinformation involved overtly false claims, others consisted of accurate information that were reconfigured so as to make the information misleading (Brennen et al., 2020). Some of this misinformation contradicted the predicted spread of the virus in communities and the actions being taken by government officials to combat the virus (Brennen et al., 2020). For example, various sources of misinformation were designed to

blame an opposing political party for the spread and economic consequences of COVID-19, and to suggest that the virus was created as a weapon for population control (Yang et al., 2020). Additional sources of misinformation undermined the success of protective measures by convincing people that they were unnecessary, such as wearing masks in public, while others twisted the fact that the virus is vulnerable to heat to claim that unsupported methods could prevent or cure the virus, such as saunas and hairdryers (Brennen et al., 2020). Other sources of misinformation used existing modeling to promote the use of excessive measures that were unwarranted based on the severity of the disease. For example, some sources promoted societal wide lockdowns until a vaccine could be distributed (see e.g., Boseley, 2020; Szaniszlo, 2020).

Previous research examining misinformation suggests that misinformation may be more prevalent on social media than credible information. A study examining the prevalence of misinformation on Twitter from 2006 from 2017 found that misinformation on 126,000 separate stories were spread by approximately 3 million people, and that less individuals were exposed to accurate information on the same stories (Vosoughi, et al., 2018). If this pattern persists, it is possible that more misinformation exists on COVID-19 on social media than does accurate information on the virus.

In addition to misinformation, individuals are exposed to the interpretations of multiple scientists who may draw different conclusions based on available data. One such scientist is Dr. Anthony Fauci, an immunologist who has directed the National Institute of Allergy and Infectious Diseases (NIAID) since 1984, and has lead efforts against other diseases such as AIDS, Ebola, and Zika (NIAID, 2020). Since the earlier stages of the pandemic Dr. Anthony Fauci claimed that evidence suggested that hydroxychloroquine

was not an effective cure against the virus and may be dangerous to some patients (e.g., Cole, 2020; Lovelace, 2020). However, in late July a group of doctors, led by Dr. Stella Immanuel, claimed that hydroxychloroquine cured all of their patients of the virus and that the treatment should be used on all individuals who contract the virus (e.g., Basen et al., 2020; Todaro, 2020). Additionally, as science is an evolving process, COVID-19 projection models and recommended protective measures constantly changed as the scientific community furthered their understanding of the virus. For instance, the predicted death toll of the pandemic changed many times as data was collected (e.g., CDC, 2020). Based on these patterns, it is likely that social media contains a large amount of both accurate and inaccurate information on the COVID-19 pandemic.

Political Perceptions of COVID-19

Due to the wide availability of large amounts of COVID-19 information and the potential threat of the virus to society, it would be expected that an individual's political orientation would influence their perception of the COVID-19 pandemic. Based on past research, an orthodox social/political psychological account would predict that both liberals and conservatives should both be concerned about the potential societal ramifications of the COVID-19 outbreak, but for different reasons. First, the fields of social, political, and personality psychology have traditionally held that conservatives tend to prefer a hierarchical social structure that maintains strict social norms and the obedience of authority to promote ingroup cohesion and the maintenance of society (e.g., Altemeyer, 1988; Harrington & Gelfand, 2014; Triandis, 1994), while liberals promote an egalitarian future where all members of society are viewed as equal (e.g., Harrington & Gelfand, 2014).

These values are illustrated in patterns that suggest that conservatives reference the past more and focus on maintaining the past, while liberals reference the future more and focus on building a future that promotes an egalitarian social structure (Robinson et al., 2015). A global worldwide pandemic poses possible threats towards both the traditional social structure, as the destabilization of society could threaten in-group cohesion and the maintenance of social norms, and an idealized future egalitarian social structure, as the conflict could prevent individuals from obtaining equality. Therefore, conservatives should be concerned about the COVID-19 pandemic due to its potential impact on the traditional social structure, while liberals should be concerned that the pandemic could hinder the social structure from progressing towards their idealized future.

Second, personality research suggests that conservatives are more likely than liberals to exhibit right wing authoritarianism (Altemeyer, 1988), in which individuals encourage strict and unquestioned obedience to the government, especially when those in charge of the government align with an individual's political orientation. Some theorists consider this to be a response designed to reduce an individual's level of perceived threat towards ambiguous situations (Katz, 1960). Also, conservatives are generally higher in conscientiousness while liberals are generally higher in openness to new experiences. These patterns may stem from the desire to maintain the traditional social structure among conservatives and an egalitarian social structure among liberals. Additionally, research suggests that liberals are more likely to engage in analytical thinking while conservatives are more likely to rely on intuition (Deppe et al., 2015; Talhelm et al., 2014).

Given that scientific research may challenge traditional beliefs regarding the way the world and society operates, liberals should be more open to accepting the scientific interpretations of researchers, while conservatives should be skeptical of information that questions societal norms (Gauchat, 2012). Consistently, research suggests that conservatives are less trusting of the mainstream media and of scientific policy that could alter the existing social structure (Gauchat, 2012; Nisbet et al., 2015; Pew Research Center for the People and Press, 2004), while liberals are more likely to trust scientists and health professionals (Gauchat, 2012; Nisbet et al., 2015). Additionally, as liberals are more likely to engage in analytical thinking than conservatives (Deppe et al., 2015; Talhelm et al., 2014), they should be more likely to accept the conclusions of scientists that undergo complex analysis, even if those conclusions challenge traditional thought.

Lastly, research suggests that conservatives are more easily disgusted by germs and are more likely to attribute perceptions of immorality to feelings of disgust than liberals (Inbar et al., 2008; Inbar et al., 2009). This could be due to the fact that social conservativism is positively correlated with a more sensitive behavioral immune system (BIS), according to a recent meta-analysis of 24 studies (Terrizzi et al., 2013). The BIS is an evolutionary adaptation that defends an individual from contamination by activating feelings of disgust when around stimuli that may lead to disease contraction (Curtis et al., 2004; Schaller, 2006). Since a potential source of disease is contact with other people, the BIS might activate conservatives' attitudes towards authority and outgroup members to decrease the likelihood of contracting a disease, resulting in smaller and more cohesive ingroups that follow strict social norms (Terrizzi et al., 2013).

Given that conservatives are more susceptible to feelings of disgust due to the activation of the behavioral immune system that activates conservative values (Inbar et al., 2008, Inbar et al., 2009; Terrizzi et al., 2013), it would be expected that conservatives would be concerned about the potential societal ramifications of the COVID-19 outbreak, and would therefore support government measures designed to combat the virus. Conservatives should also expose themselves to news sources that advocate that individuals follow authority to maintain the social structure, therefore reinforcing their beliefs. It would be expected that liberals would support the same measures since they are more likely to trust scientists and might be concerned of the potential ramifications of the pandemic on an egalitarian social structure.

However, polling research suggests that the normal political patterns were not present in the COVID-19 pandemic. Given that political orientation is strong indicator of party identification, in that most liberals in the United States align with the Democratic party while most conservatives align with the Republican party (e.g., Twenge et al., 2016), national polls often examine differences between these two major political parties. For example, data collected by Pew Research Center (2020) suggests that COVID-19 perceptions gradually became more polarized by political party: Democrats were more likely to be concerned about the potential health impacts of the virus than Republicans, and concern about the virus decreased over time among Republicans due to the belief that the worst of the virus had passed. Additionally, while most people believed that their actions contributed to the spread of the virus, Republicans were less likely to believe that masks should be worn in public and were more likely to feel comfortable in crowded places where the virus could spread.

Consistent with these findings, conservatives were less likely than liberals to feel the need to change their daily lives in response to the pandemic and were more likely to believe in misconceptions about the virus (Pennycook, 2020). Additionally, compared to liberals, conservatives were more likely to believe the threat of COVID-19 was being exaggerated by the media or was a hoax designed to give politicians excessive power (Alper et al., 2020). Since liberals are more likely than conservatives to trust the conclusions of scientists and engage in analytical thinking (Deppe et al., 2015; Gauchat, 2012; Nisbet et al., 2015; Talhelm et al., 2014), one might expect that they would hold a realistic perception of the COVID-19 pandemic that is consistent with scientific models and projections. However, during the pandemic liberals exaggerated the threat of COVID-19 beyond what the most reliable models indicated and sometimes advocated for extreme measures such as closing society until a vaccine is developed (see e.g., Boseley, 2020; Szaniszlo, 2020).

Contextual Considerations

Social psychological phenomena are generally complex processes that occur within the context of cultural and worldwide events and are influenced by a multitude of factors. These phenomena operate in a dose dependent fashion, and it would be expected that the COVID-19 pandemic would have a direct impact on psychological outcomes. Specifically, the pandemic could have modified participant's baseline measures, increased or decreased the effect of a specific psychological phenomenon, or result in a new effect entirely. Therefore, exiting psychological theories and patterns must be reevaluated following the emergence of the COVID-19 pandemic to determine if any changes have occurred (Rosenfeld et al., 2020).

An additional contextual consideration is the political orientation of social psychologists. Polling research suggests that while only about 19-23% of the American population identify as liberal (Jones, 2014), a disproportionate number of social psychologists claim to be liberal (approximately 85.2-90.6%; Inbar & Lammers, 2012). Various studies suggest that that the liberal leaning of social psychologists has led to the idea that scientific research is meant to promote a liberal agenda (Clark & Winegard, 2020; Honeycutt & Jussim, 2020), created politically biased research questions that act as self-fulfilling prophecies (Brandt et al., 2014; Ditto et al., 2018; Jussim, 2012; Jussim et al., 2018), influenced researchers to misinterpret ambiguous results as supporting their political beliefs (Jussim et al., 2016) and lead researchers to cite less rigorous studies that support their ideology over higher quality studies (Honeycutt & Jussim, 2020). Therefore, analyses that examine the psychological differences associated with various political orientations must be careful to address these potential sources of researcher bias, as the results could have been influenced by the beliefs of the researcher.

Despite the complexity of social psychological phenomena and the possibility that past findings were the result of researcher error, several contextual mechanisms could explain why liberals and conservatives were not equally concerned about the COVID-19 pandemic as would be expected. In regard to conservatives who believed that the virus was being exaggerated by the media or was a hoax, this could be due to the fact that conservatives generally display less trust in scientists, health professionals, and the media (Gauchat, 2012; Nisbet et al., 2015; Pew Research Center for the People and Press, 2004). Additionally, Feinberg et al. (2013) suggest that conservatives are less likely to engage in disgust reappraisal after initial feelings of disgust to reduce cognitive dissonance, making

it less likely that they will think about what caused the feelings of disgust. Also, Jonas et al. (2001) suggests that after making a preliminary decision, individuals are more likely to engage in information that supports their initial decision. Therefore, it is possible that after initially viewing information regarding the coronavirus pandemic, that instead of attributing their initial disgust to the virus as would be expected, that conservatives instead attributed their disgust to mistrust in scientists and the media, which they then did not reappraise and formed the conclusion that the virus was exaggerated.

Conway et al. (2020) provided evidence that conservatives might have been less concerned about the pandemic because it did not align with their political beliefs. The authors predicted that as exposure to infectious diseases is generally associated with higher levels of conservatism (e.g., Conway et al., 2017; Tybur et al., 2016), that it is possible that conservatives were less concerned about the COVID-19 pandemic because they were less exposed to the virus than liberals. However, the researchers reported that an individual's political beliefs were a much stronger indicator than exposure to the virus on an individual's concern of the pandemic (Conway et al., 2020). Based on this evidence, it appears more likely that conservatives would attribute their initial feelings of disgust towards the virus to their mistrust in the government and the media.

Another contextual factor that should be considered is President Trump's response to the COVID-19 pandemic. Throughout the pandemic, President Trump was skeptical of data detailing the severity of the pandemic (e.g., Egan, 2020b), and at one point accused Democrats of politicizing the pandemic (Egan, 2020a). As President Trump was the highest elected Republican in the United States and conservatives value obedience to authority (Altemeyer, 1988; Harrington & Gelfand, 2014; Triandis, 1994), it

is possible that President Trump's reaction towards the COVID-19 pandemic influenced conservatives to be more skeptical of the virus and downplay its severity.

Research suggests that conservative individuals who are content with the social structure are more likely to report higher levels of happiness and life satisfaction (Napier & Jost, 2008; Schlenker et al., 2012). Additionally, conservatives are higher in religiosity than liberals (Bixter, 2015; Duriez, 2003), and higher levels of religiosity are associated with higher levels of happiness and psychological wellbeing (Bixter, 2015; Dunbar, 2020). Although an egalitarian mindset might help liberals achieve the outcomes that they desire, it might cause liberals to fear events that could hinder their goal. As threats of potentially catastrophic events such as COVID-19 and climate change have increased in recent years, it is possible that the fear of a non-egalitarian future has caused liberals to exaggerate the threat of potentially catastrophic events and consider non-dangerous events to be threatening, which may have led liberals to advocate for unnecessary and obsessive measures to combat events such as the COVID-19 pandemic. Additionally, COVID-19 projection models and recommended protective measures constantly changed as the scientific community furthered their understanding of the virus. It is possible that some liberals might have only paid attention to the most extreme COVID-19 projections and ignored others, thereby confirming their belief that the pandemic should be considered a potentially catastrophic event.

Selective Exposure During COVID-19

As previously stated, conservatives were more likely to claim that the COVID-19 pandemic was a hoax (Alper et al., 2020; Pennycook, 2020; Pew Research Center, 2020), while liberals were more likely to exaggerate the threat of the virus (Boseley, 2020;

Szaniszlo, 2020; Pew Research Center, 2020). Since conservatives are more likely to be disgusted by germs (Inbar et al., 2008, Inbar et al., 2009; Terrizzi et al., 2013), less likely to reappraise their initial disgust (Feinberg et al., 2013), and more likely to mistrust scientists and the media (Gauchat, 2012; Nisbet et al., 2015; Pew Research Center for the People and Press, 2004), it is possible that conservatives attributed their initial disgust in the COVID-19 pandemic towards their mistrust in the media, which they did not reappraise. Additionally, since liberals are more likely to trust scientists (Gauchat, 2012; Nisbet et al., 2015) and hold an egalitarian mindset (Harrington & Gelfand, 2014), it is possible that the fear of a non-egalitarian future caused liberals to exaggerate the threat of the COVID-19 pandemic. After forming these conclusions about the pandemic, it is possible that individuals then exposed themselves to information that confirmed their beliefs. Due to technological advances in the 21st century and changes in how individuals seek information, it has become much easier for individuals to obtain desired information, which could have facilitated the polarization of the COVID-19 pandemic.

The past decade has seen a decline in the consumption of traditional news sources such as newspapers and local television stations by 18% (Pew Research Center, 2012), as an increasing number of Americans use social media as a platform to share news stories (Pew Research Center, 2014). Along with international news stations that follow a 24-7 news cycle, social media news has created an environment where information is readily available to consume at any time. A recent longitudinal study reported that as adolescents the participants spent an average of 30-60 minutes a day using social media, compared to 2 hours a day as adults (Coyne et al., 2020). Individuals might engage in social media for either information seeking or entertainment purposes. However, individuals who use

social media for entertainment are highly likely to encounter social media news posts through incidental exposure (Fletcher & Nielsen, 2017). Additionally, the average American spends an average of 2.8 hours per day watching television (US Department of Labor, 2015). These patterns suggest that Americans are very likely to be exposed to a large amount of information on a variety of scientific and political topics on a daily basis.

Although the increase in news accessibility and consumption has made it easier for viewers to find information, it has presented several problems as well. As stated previously, research suggests that the internet contains a large amount of misinformation and that individuals have a high likelihood of viewing it (Brennen et al., 2020; Vosoughi, et al., 2018; Yang, 2020; Zarocostas 2020). Additionally, the availability of information might seem overwhelming to individuals who do not have time to sift through all of the information. Therefore, individuals are often forced to select a small number of sources to view out of a large population of sources. This pattern is visible in television consumption, as the average American receives 205.9 channels but only regularly watches about 19.8 channels (Nielsen, 2016).

Due to the rise in information technology and the decreased cost of distributing information to a large audience, the 21st century has also experienced a drastic change in how this information is advertised and marketed. Companies have transitioned from a one-size-fits-all approach where only the most popular and highly demanded products and information are advertised to everyone, to a more personalized model where information on all points of the demand curve are advertised to specific individuals based on their interests. Therefore, news consumption has evolved from a passive and

centralized activity to one in which individuals are encouraged to search for information that is relevant to their own interests (Anderson, 2006).

As it would be time-consuming and mentally exhausting to examine all information available to an individual, humans have evolved various heuristics and biases that allow individuals to select certain pieces of information and form conclusions with minimal cognitive effort (LeDoux, 1998; MacNamara et al., 2013; Tversky & Kahneman, 1974). Research has examined how these cognitive biases influence the processes in which individuals search for information, interpret the information, and make decisions based on this interpretation. Cognitive biases are often seen as an adaptation as they would have alerted pre-modern humans to the presence of a dangerous stimuli in the environment and would have allowed the individual to escape the situation (LeDoux, 1998; MacNamara et al., 2013). While cognitive biases that allow for quick decisions may be beneficial in some situations (Dijksterhuis, et al., 2004; Nickerson, 1998), in other situations they may lead individuals to form incorrect conclusions on various scientific and political topics by ignoring important pieces of information and misjudging the probability that an event will occur (Knobloch-Westerwick et al., 2015; Knobloch-Westerwick et al., 2020; Meppelink et al., 2019).

One such cognitive bias is confirmation bias, which was first defined by Wason (1960) as the tendency for an individual to search for and accept information that would confirm their beliefs and avoid and reject information that would disconfirm their beliefs. Encountering information that is contradictory to one's beliefs may result in feelings of personal discomfort, known as cognitive dissonance (Festinger, 1957). Confirmation bias allows individuals to minimize the risk of experiencing cognitive dissonance by engaging

in a variety of behaviors, such as avoiding the conflicting information entirely. With an average effect size of d = 0.36 (Hart et al., 2009), confirmation bias influences an individual to selectively expose themselves to confirmatory information, thereby causing them to remain in an ideological bubble where their pre-existing beliefs are continuously confirmed (Frimer et al., 2017).

Given that individuals are motivated to avoid contradictory information to reduce cognitive dissonance (Festinger, 1957), individuals should attempt to avoid the opinions of those on the other end of the political spectrum so that they do not have to rethink their beliefs and evaluate new information (Frimer et al., 2017). As previously stated, conservatives tend to prefer a hierarchical social structure that obeys authority, maintains strict social norms, and distinguishes between the ingroup and the outgroup to ensure the survival of society (Altemeyer, 1988; Harrington & Gelfand, 2014; Triandis, 1994), while liberals tend to prefer an egalitarian social structure with loose social norms where all members of society are viewed as equal (Harrington & Gelfand, 2014). Additionally, personality research has found that liberals are higher in openness to new experiences, while conservatives are lower in openness to new experiences and higher in conscientiousness (Furnham & Fenton-O'Creevy, 2018; Sibley, 2012). Therefore, individuals should engage in news sources and information that supports their political ideology. Based on the values and personality characteristics commonly displayed by liberals, it would be expected that liberals should prefer news sources that promote equality and social justice for all members of society, new scientific and technological advances that enhance and improve our way of life, and that hold the government and authority accountable to the law. Additionally, conservatives should prefer news sources

that promote skepticism towards advances that might change the social structure, highlight strict punishment for deviance, and illustrate the presence of outside threats to their country and the actions being taken to eliminate the threat.

Recent research suggests that this is the case. Consistent with what would be expected based on value and personality characteristics, Republicans are more likely to rate mainstream news sources as biased (Pew Research Center for the People and Press, 2004), and are more likely to listen to conservative news sources such as Fox News (Pfau et al., 2007). Iyengar and Hahn (2009) conducted an experiment to determine if participants would be more likely to prefer a news report if it was attributed to a news organization that matched their political ideology. The researchers randomly assigned news stories collected from MSNBC to be labeled as one of four news organizations: Fox News, NPR, CNN, and BBC. Even though all the of the new stories were written from a liberal perspective, the results suggest that Republicans were more likely to prefer information attributed to Fox News, while Democrats were more likely to prefer information attributed to CNN and NPR. These results suggest that individuals not only prefer information that matches their ideology, but also information from a trusted source that they believe represents their attitudes, even if a specific piece of information does not match their political orientation. Additionally, these patterns were found not just for controversial political topics such as war, but also for "soft" topics such as travel and sports, suggesting that selective exposure may lead to polarization on a variety of topics.

While some studies have examined how individuals passively consume information by simply watching news organizations that are perceived to match their political ideology and avoiding the opinions of individuals who they disagree with

(Frimer et al., 2017; Iyengar & Hahn, 2009; Pfau et al., 2007), other studies have examined how participants actively search for information online that confirms their pre-existing beliefs. Knobloch-Westerwick et al. (2015) measured participants' attitudes towards various political topics and then provided them with a link to articles that supported and contradicted their beliefs. When given two minutes to research information on a specific topic, participants were more likely to spend more time reading information that supported their beliefs. Participants also rated the information as more credible, regardless of the actual credibility of the information. Knobloch-Westerwick et al. (2020) conducted a similar study, finding that individuals with a strong national identity and tendency to engage in both upward and downward social comparisons were more likely to engage in attitude consistent information.

Since individuals with a strong national identity are more likely to engage in selective exposure (Knobloch-Westerwick et al., 2020), research has also examined whether an individual's political orientation influences the likelihood that they will engage in selective exposure to confirm their beliefs. Numerous studies have claimed that Republicans are more likely to engage in selective exposure of attitude consistent information. For example, research examining participant's attitudes towards candidates in the 2000 and 2016 presidential elections found that Republicans were more likely to read information that supported the Republican candidate (Guess et al., 2018; Iyengar et al., 2008). However, Frimer et al. (2017) suggests that these findings could be a result of a larger quantity of pro-Republican information available during recent elections, and the studies are limited in their ability to accurately measure selective exposure as they ask participants to respond retrospectively on their information seeking behavior.

Since conservatives are more likely to display authoritarianism (Altemeyer, 1988), Lavine et al. (2005) examined the relationship between perceived threat and selective exposure to information among individuals low and high in authoritarianism. In this study the researchers randomly assigned participants to a no threat or threat condition in which their mortality was made salient, and then were given the chance to read articles that both supported and contradicted their attitudes towards capital punishment. The results suggest that in the no threat condition, individuals low and high in authoritarianism exhibited equal levels of open-mindedness and selective exposure to attitude consistent information. However, in the threat condition individuals high in authoritarianism were more likely to engage with the information that supported their beliefs. These findings also suggest that conservatives may be more likely to engage in selective exposure.

Although some research suggests that conservatives are more likely to engage in selective exposure (Guess et al., 2018; Iyengar et al., 2008; Knobloch-Westerwick et al., 2020; Lavine et al., 2005), these studies may be limited due to their methodology, as mentioned previously (Frimer et al., 2017). Therefore, Frimer et al. (2017) conducted five studies to address these limitations. In each study participants were told that they would be given a chance to win a small amount of money to engage in information that supported their political beliefs. However, participants were told that they could win a slightly larger amount of money if they engaged with information supporting the other side of the debate. Issues included the legalization of same sex marriage, candidate preference for a previous election, and candidate preference for upcoming elections. The results of all five studies found that conservatives and liberals were equally likely to give

up a chance to win more money in order to avoid engaging with the opinion of the other side. When asked why they chose to avoid attitude inconsistent information, most participants reported that they wanted to avoid feelings of cognitive dissonance and the possibility of damaging relationships. The results of these five studies, which were then subjected to a meta-analysis, suggest that liberals and conservatives are equally likely to engage in selective exposure to avoid experiencing cognitive dissonance, despite past research that indicates a difference between political parties. However, further research using similar methodology is needed to support these findings.

Additionally, research suggests that not only are individuals likely to engage in selective exposure to confirm their political beliefs as mentioned previously (Frimer et al., 2017; Knobloch-Westerwick et al., 2015; Knobloch-Westerwick et al., 2020), but also to confirm their beliefs about scientific phenomenon and health information (Hennessy et al., 2017; Meppelink et al., 2019; Miller et al., 2006). For example, research suggests that when given the chance to read online articles on the advantages and disadvantages of vaccinations, individuals who already believe that vaccines are dangerous are more likely to engage in information consistent with this belief (Meppelink et al., 2019). Additionally, while health literate individuals who are able to use information to make informed health decisions are generally healthier and are hospitalized less often (Berkman et al., 2011), they are also more likely to engage in biased selection of health information (Meppelink et al., 2019). This is problematic as individuals who obtain information from the internet are more likely to exempt their children from vaccinations (Jones et al., 2012).

Studies have also reported that an individual's political beliefs influence their beliefs on various scientific topics. For example, liberals are more likely to be concerned about climate change (Hamilton, 2011; Marquart-Pyatt et al., 2014) and believe in evolution (Miller et al., 2006), while conservatives are more likely to be concerned about the ethics of stem cell research (Ho et al., 2008; Wertz, 2002). To examine if individuals selectively expose themselves to scientific information based on their political ideology, Hennessy et al. (2017) examined participant's news consumption of a climate change related event. In 2014 the US National Oceanic and Atmospheric Association (NOAA) reported that while herds of walruses in the Pacific Ocean usually gather on a beach in Alaska before hauling onto floating ice, an abnormal number of walruses remained on the beach during the 2014 season, leading some scientists to claim that climate change resulted in a decrease in sea ice (Qui, 2014; Quinn, 2014). During the event, liberals were significantly more likely to be aware of the Walrus haul out and expose themselves to information that claimed that the event was caused by climate change (Hennessy et al., 2017), suggesting that participants viewed information about the event that supported their pre-existing beliefs on climate change.

Research has also suggested that liberals are more likely to trust scientists (Gauchat, 2012; Nisbet et al., 2015), which may contribute to the forms of information that individuals expose themselves to. Gauchat, (2012) examined data from the 1974 to 2010 General Social Survey to examine political differences in trust in science during this time period. The results suggest that while conservatives reported the highest trust in scientists at the beginning of the study, they were less likely to trust scientists than liberals and moderates at the end of the study. However, general public trust in science

did not decline throughout the study. These patterns suggest that perceptions of science have gradually become more polarized over time, especially research that is funded by the government or meant to influence social policy.

Based on these patterns, it was expected that an individual's political orientation and their perception of the COVID-19 pandemic would influence the type of information that they viewed about the pandemic. As stated previously, conservatives are more likely to perceive mainstream media sources as biased and are more likely to listen to independent conservative speakers and Fox News (Iyengar & Hahn, 2009; Pew Research Center for the People and Press, 2004; Pfau et al., 2007). Therefore, it is possible that after attributing their initial disgust to their mistrust in the media and after failing to reappraise this disgust, that conservatives then selectively exposed themselves to conservative sources that confirmed their beliefs. In fact, over the course of the pandemic, conservative news sources disseminated conspiracy theories that took advantage of common misperceptions about the virus, misinterpreted data, and conservative's distrust in the government. For instance, Fox News host Sean Hannity referred to the virus as a "fraud" (Rupar, 2020) while Trish Regan claimed that the virus was an attempt to "destroy and demonize the president" (Van Bavel, 2020). Additionally, both Fox News host Tucker Carlson and President Donald Trump claimed that the public should not believe reported death tolls because they were inflated with cases that should not have been attributed to COVID-19 (Nguyen, 2020; Perez, 2020). Among conservatives, those who regularly watch Fox News, were more likely to believe that the virus was exaggerated and were less likely to stay at home (Beauchamp & Animashaun, 2020). These findings are problematic, as conservatives who were already skeptical about

the pandemic might have then exposed themselves to more of this information and strengthened their belief.

Additionally, since liberals are more likely to trust scientists and the mainstream media and hold egalitarian values, it is possible that after forming the belief that the COVID-19 pandemic was a threat to an egalitarian future that they then exposed themselves to information that exaggerated the virus. Similar to how conservative news sources disseminated conspiracy theories during the pandemic (Nguyen, 2020; Perez, 2020; Rupar, 2020; Van Bavel, 2020), liberal news sources selectively exposed their audiences to information that fits their narrative, and have been found to dramatize scientific events such as climate change (Carvalho, 2007; Dirikx & Gelders, 2010). During the pandemic, these news sources allowed more news coverage for projections that predicted a worse outcome than models that indicated that the pandemic might not be as severe as scientists previously thought. Liberal news sources often highlighted when Republican run states experienced an increase in COVID-19 cases but ignored when Democratic run states experienced an increase. Additionally, these news sources illustrated the threat of COVID-19 to discourage certain actives, such as travelling, while downplaying the severity of the virus to encourage other activities such as protesting racial injustice. Therefore, liberals who already held an exaggerated view of the virus might have then exposed themselves to mainstream news sources and confirmed their skewed representation of the COVID-19 pandemic.

Current Study

Based on past research, I expected that an individual's perception of the COVID-19 pandemic would be influenced by their political orientation. I expected that

conservatives would attribute their initial disgust of the virus towards their mistrust in the media and scientists, and that they would not reappraise this belief and selectively expose themselves to information that confirms their belief. Additionally, I expected that liberals would fear the potential ramifications of the virus on an egalitarian future and would selectively expose themselves to information that frames the virus in this perspective.

Specifically, the following hypotheses are summarized in Table 1:

1) Conservatives would be more likely to endorse values related to tradition and the maintenance of the social structure, while liberals would be more likely to endorse values that promote an egalitarian society.
2) Conservatives would be more likely to downplay the pandemic and consider it to be a hoax, while liberals would be more likely to exaggerate the severity of the pandemic and endorse excessive measures.
3) Participants would engage in selective exposure of information to confirm their beliefs about the pandemic. Conservatives would be more likely to view and endorse information about the pandemic that frames the virus in a conservative perspective, while liberals would be more likely to view information about the pandemic that frames the virus in a liberal perspective.
4) Conservatives would be more likely to have a more sensitive behavioral immune system and would be less likely to reappraise their emotions and feelings of disgust than liberals.
    a. BIS Sensitivity and Disgust reappraisal would independently mediate the relationship between political orientation and perceptions of the pandemic.

Table 1. *Summary of hypotheses.*

	Hypothesis	**IV**	**M**	**DV**
1	Conservatives would be more likely to endorse traditional values, while liberals would be more likely to endorse egalitarian values	Political orientation		Motivational values
2	Conservative would be more likely to downplay the pandemic, while liberals would be more likely to exaggerate the pandemic	Political orientation		COVID-19 perceptions
3	Participants would engage in selective exposure of information to confirm their beliefs about the pandemic	Political orientation	News source and political meme endorsement	COVID-19 perceptions
4	Conservatives would be more likely to have a more sensitive behavioral immune system and would be less likely to reappraise their emotions and feelings of disgust than liberals.	Political orientation, motivational values		Perceived vulnerability to disease, disgust sensitivity, disgust and emotional reappraisal
4A	BIS Sensitivity and Disgust reappraisal would independently mediate the relationship between political orientation and perceptions of the pandemic.	Political orientation, motivational values	Perceived vulnerability to disease, disgust sensitivity, disgust and emotional reappraisal	COVID-19 perceptions

Method

Participants

Data for this study was collected via an online survey from a sample of 198 college undergraduates enrolled in psychology courses at Murray State University between September and November during the fall 2020 semester. Participants were mostly White (85.86%) and female (73.74%), with ages ranging from 17 to 31 (M = 19.00, SD = 1.91). Students at this university had the option to participate in various studies for course credit, and this study was visible to participants as "Disgust Sensitivity and Information Availability" among a list of other studies. The University's Institutional Review Board approved all study procedures before the study was administered (#21-018). There was no monetary incentive for participation and participants were informed that they could withdraw from the study at any time without penalty. Participant data was de-identified, thus responses cannot be traced back to participants. The exact data collection procedure and plans, in addition to all other materials (e.g., output, IRB paperwork) can be found on https://osf.io/4p5f3/files/

Procedure

Upon choosing to participate in the study, participants were provided a link to the survey where they first received an informed consent form. Political related questions were presented at the end of the study in the demographic section to minimize the likelihood that participants would guess the purpose of the study. The remaining questionnaires were randomized within the survey so that participants viewed them in

random order. After completing the survey participants were provided with a debriefing form that explained the nature of the study. The survey took an average of 27 minutes to complete.

Measures

COVID-19 Beliefs

Multiple measures were created for this study to examine participants' beliefs about the COVID-19 pandemic. Participants were asked to indicate the extent to which they agreed with eight statements related to the pandemic on a scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree). Two of the eight statements represented what could be considered an extreme conservative perception of the pandemic (e.g., "The pandemic is a hoax designed to instill fear and manipulate society"), while another two statements represented an extreme liberal view of the pandemic (e.g., "The pandemic is real but was not taken seriously enough"). The remaining four statements represented a moderate view of the pandemic (e.g., "The pandemic is real but the threat of the virus has been exaggerated").

Two additional measures were included for exploratory purposes. First, participants were asked to indicate their perception of the pandemic via free response, and were provided with suggestion questions to aid in their response, such as "Do you believe that that society's reaction to the virus was appropriate, overexaggerated, or underexaggerated?" and "Who is to blame for the severity of the virus and the economic repercussions?". Additionally, participants were provided with descriptions of Dr. Fauci and Dr. Immanuel and were asked to indicate whose interpretation of the COVID-19 pandemic that they would be more likely to trust.

COVID-19 Information Seeking

Participants completed various scales designed to measure their information seeking patterns and selective exposure during the pandemic. First, participants indicated where they received most of their information regarding COVID-19 *via free response*. Next, participants were presented with various news sources and were asked to indicate how likely they would trust the information sources regarding COVID-19 information on a scale of 1 (Very Unlikely) to 7 (Very Likely). Participants could also indicate that they are unaware of the information source and these sources were excluded from analyses. Three subscales of information sources were presented to participants: liberal sources (e.g., NBC and CNN, $\alpha = 0.95$, $M = 3.39$, $SD = 1.52$), conservative sources (e.g., Fox News and President Trump, $\alpha = 0.89$, $M = 3.02$, $SD = 1.56$), and neutral sources (e.g., health professionals and the Center for Disease Control, $\alpha = 0.86$, $M = 5.24$, $SD = 1.44$). Subscale scores were created by averaging responses for each source type, so that a score ranging from 1-7 was created to indicate the likelihood that participants will view liberal, conservative, and neutral sources for COVID-19 information.

Participants were also provided will with a series of political memes and news stories gathered from social media websites such as Facebook and Twitter. Half of the memes promoted a liberal ideology of the COVID-19 pandemic, while the other half promoted a conservative ideology. Participants were asked to indicate the likelihood that they would agree with the meme or news story and share it on their social media platform on a Likert scale ranging from 1 (Very Unlikely) to 7 (Very Likely). Subscales ranging from 1 to 7 were created to indicate the likelihood that participants would endorse liberal

(α = 0.92, *M* = 3.74, *SD* = 1.17) and conservative (α = 0.92, *M* = 2.66, *SD* = 1.09) memes by averaging the scores of liberal and conservative memes.

Behavioral Immune System (BIS) Sensitivity

Participants completed two scales designed to measure BIS sensitivity. The Perceived Vulnerability to Disease (PVD) Scale (Duncan et al., 2009) was used to measure a specific component of BIS sensitivity: an individual's perception of the likelihood that they will contract an infectious disease such as the flu. This 15-item scale asked participants to rate their agreement with statements on a scale of 1 (Strongly Disagree) to 7 (Strongly Agree). The PVD Scale contains two subscales designed to examine perceived infectibility (e.g., "In general, I am very susceptible to colds, flu and other infectious diseases", α = 0.85, *M* = 3.73, *SD* = 1.12) and germ aversion (e.g., "I avoid using public telephones because of the risk that I may catch something from the previous user", α = 0.60, *M* = 4.14, *SD* = 0.92). Responses were averaged to create a score between 1 and 7 to indicate an individual's perceived vulnerability to infectious diseases (α = 0.76, *M* = 3.95, *SD* = 0.81)

Since the Perceived Vulnerability to Disease (PVD) Scale is specifically related to infectious diseases, a second general BIS sensitivity scale appeared randomly within the survey to reduce the likelihood that participants would guess the nature of the study and alter their responses. The Disgust Sensitivity Scale (DSS; Olatunji et al., 2007, adapted from Haidt et al., 1994) was used as a more general measure of BIS sensitivity to examine a participant's aversion to various disgusting circumstances. The DSS asked participants to indicate if they would find various situations disgusting using a true (1) or false (0) scale in section one and a Not Disgusting" (0), "Slightly Disgusting" (0.5) or

"Very Disgusting" (1) scale in section two. A scale ranging from 0-25 was created to indicate an individual's level of disgust sensitivity (α = 0.74, *M* = 12.99, *SD* = 3.87). The DSS includes various subscales designed to measure various disgusting situations including contamination-based disgust (e.g., "I probably would not go to my favorite restaurant if I found out that the cook had a cold") and animal remainder disgust (e.g., "It would bother me to sleep in a nice hotel room if I knew that a man had died of a heart attack in that room the night before").

Disgust/Emotion Reappraisal

Participants completed a 4-item Disgust and Emotion Reappraisal scale (Feinberg et al., 2013, modeled after Gross & John, 2003) designed to measure an individual's tendency to reappraise their emotions and feelings of disgust. The scale asked participants to rate their agreement with the 4 statements using a scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree). Two of the statements measured disgust reappraisal (e.g., "When I'm faced with a disgusting situation, I make myself think about it in a way that helps me not feel disgusted") while the other two statements measured emotion reappraisal (e.g., "When I want to feel less negative emotion, I change the way I'm thinking about the situation"). Responses were averaged to create a score ranging from 1 to 7 to indicate the likelihood that a participant will engage in disgust and emotion reappraisal (α = 0.86, *M* = 4.62, *SD* = 1.37).

Political Ideology

Multiple measures were included within the demographic section of the survey to measure political ideology. Participants were asked to indicate their political orientation on a scale of 1 (Very Liberal) to 7 (Very Conservative). Participants were also presented

with five values from The Motivational Values Scale (Schwartz, 1994). This scale presented participants with definitions of various values and asks them to the extent to which the principles guide their life on a scale from -1 (Opposed to My Values) to 7 (Very Important). Three of the values generally coincide with a conservative ideology: Tradition (M = 4.60, SD = 1.95), Conformity, (M = 3.44, SD = 2.14), and Security (M = 5.46, SD = 1.48). The other two values generally coincide with a liberal ideology: Universalism (M = 5.46, SD = 1.63) and Benevolence (M = 5.14, SD = 1.68). The five motivational values were examined as separate indicators of political ideology.

Results

Descriptive Statistics

Participants were asked to indicate their political orientation on a scale ranging from 1 (very liberal) to 7 (very conservative). Analyses indicated that the average score for political orientation was 4.04 (*SD* = 1.76). Additionally, 56.57% of participants indicated that they were moderately liberal to moderately conservative. These results suggest that political ideology was normally distributed and that participants identified as mostly moderate.

Participants were asked to indicate their perception of the COVID-19 pandemic by indicating their agreement with eight items on a scale of 1 (Strongly Disagree) to 7 (Strongly Agree). Results indicated that only 12.63% of participants scored above the midpoint (4) on the statement that the pandemic is a hoax designed to manipulate society, indicating agreement with this statement. Additionally, 2.53% of participants agreed all COVID restrictions are unnecessary, 49.50% agreed that the pandemic is real but was exaggerated, 20.20% agreed that existing restrictions should be scaled back, 41.92% agreed that society responded appropriately, 41.92% agreed that all restrictions were justified, 42.42% agreed that the pandemic was not taken seriously enough, and 42.42% agreed that stricter mandates should have been implemented.

Participants also completed various exploratory measures related to their perception of the COVID-19 pandemic. For example, participants were asked to freely indicate who they believe is responsible for the repercussions of the pandemic. 28.28%

indicated that no is responsible or that everyone is equally to blame. Additionally, 16.16% blamed President Trump and the Republican party, 15.15% blamed individuals who did not follow guidelines, 14.65% blamed the government in general, 14.14% blamed China, and 6.57% blamed liberals and the media. Participants were also asked if they were more likely to trust Dr. Fauci or Dr. Immanuel. 32.83% of participants indicated that they trusted Dr. Fauci, 27.78% trusted Dr. Immanuel, 36.87% indicated that the trusted neither or did not think they had enough information to decide.

Analysis Summary

Given the large number of hypotheses and analyses conducted in this study due to its exploratory nature, the results of each hypothesis are summarized in Table 2 below. All analyses were conducted using JASP version 0.10.2.0.

Table 2. *Summary of results.*

	Hypothesis	Findings	Support
1	Conservatives would be more likely to endorse traditional values, while liberals would be more likely to endorse egalitarian values	Individuals who identified as more conservative were more likely to value tradition, while individuals who were more liberal were more likely to value universalism.	Full Support
2	Conservative would be more likely to downplay the pandemic, while liberals would be more likely to exaggerate the pandemic	Conservative individuals were more likely to consider the pandemic a hoax and restrictions to be unnecessary, while liberal individuals were more likely to believe the pandemic had been underplayed and that more restrictions are needed.	Full Support
3	Participants would engage in selective exposure of information to confirm their beliefs about the pandemic	Conservative individuals were more likely to endorse conservative news sources/memes, liberal individuals were more likely to endorse liberal news sources/memes. Additionally, the relationship between political ideology and pandemic perceptions was mediated by information exposure.	Full Support
4	Conservatives would be more likely to have a more sensitive behavioral immune system and would be less likely to reappraise their emotions and feelings of disgust than liberals.	Conservative individuals were less likely to believe that they were vulnerable to infectious diseases such as COVID-19, the opposite of what was expected. Valuing tradition was positively associated with DER, while valuing universalism was positively associated with DER and PVD.	No Support
4a	BIS Sensitivity and Disgust reappraisal would independently mediate the relationship between political orientation and perceptions of the pandemic.	Perceived vulnerability to disease mediated the relationship between political ideology (political orientation and universalism) and the beliefs that the pandemic was underplayed and more restrictions are needed. The remaining mediation models were not significant.	Partial Support

Hypothesis 1

A series of linear regressions were conducted to examine the hypothesis that conservatives would be more likely to endorse values related to tradition and the maintenance of the social structure, while liberals would be more likely to endorse values that promote an egalitarian society. Correlations between all tested variables are depicted in Table 3. The results indicated that political orientation was positively associated with tradition ($\beta = 0.41$, SE = 0.07, $p < 0.001$) and negatively associated with universalism ($\beta = -0.30$, SE = 0.06, $p < 0.001$). These results indicate that individuals who identified as more conservative were more likely to value tradition, while individuals who identified as more liberal were more likely to value universalism. Since political ideology was only associated with tradition and universalism, only these two values were examined in further analyses that examined motivational values.

Hypothesis 2

A series of linear regressions were conducted to examine the hypothesis that conservatives would be more likely to downplay the pandemic while liberals will be more likely to exaggerate it. Correlational analyses indicated general support for this hypothesis. Political orientation was significantly associated with reports that (1) the pandemic is a hoax ($\beta = 0.52$, $SE = 0.06$, $p < 0.001$), (2) no restrictions are needed to combat the virus ($\beta = 0.28$, $SE = 0.04$, $p < 0.001$), (3) the pandemic is real but has been exaggerated ($\beta = 0.58$, $SE = 0.07$, $p < 0.001$), (4) current restrictions should be scaled back ($\beta = 0.57$, $SE = 0.06$, $p < 0.001$), (5) the measures taken have been justified ($\beta = -0.37$, $SE = 0.07$, $p < 0.001$), (6), the pandemic has been underplayed ($\beta = -0.57$, $SE = 0.07$, $p < 0.001$), and (7) stricter mandates are needed to combat the virus ($\beta = -0.58$, $SE =$

0.08, $p < 0.001$). These results indicate patterns in the expected directions, in that individuals who identified as more conservative were more likely to downplay the pandemic, while individuals who identified as more liberal were more likely to exaggerate it.

Given that analysis of hypothesis one indicated that political orientation was associated with tradition and universalism, regression analyses were conducted to examine if these motivational values predicted beliefs about the pandemic. The results indicated that individuals who rated tradition as more important were significantly more likely to believe that (1) the pandemic is a hoax ($\beta = 0.28$, $SE = 0.06$, $p < 0.001$), (2) no restrictions are needed ($\beta = 0.14$, $SE = 0.04$, $p = 0.025$), (3) the pandemic is real but has been exaggerated ($\beta = 0.30$, $SE = 0.07$, $p < 0.001$), (4) and existing restrictions should be scaled back ($\beta = 0.26$, $SE = 0.07$, $p < 0.001$), and were significantly less likely to report that (1) the pandemic has been underplayed ($\beta = -0.21$, $SE = 0.08$, $p = 0.002$) and (2) stricter measures are needed ($\beta = -0.25$, $SE = 0.08$, $p < 0.001$).

Additionally, individuals who rated universalism as more important were significantly less likely to believe that (1) the pandemic is a hoax ($\beta = -0.18$, $SE = 0.07$, $p = 0.007$), (2) no restrictions are needed ($\beta = -0.20$, $SE = 0.05$, $p = 0.003$), (3) the virus has been exaggerated ($\beta = -0.22$, $SE = 0.09$, $p = 0.001$), (4) and existing restrictions should be scaled back ($\beta = -0.25$, $SE = 0.08$, $p < 0.001$), and were significantly more likely to report that (1) society has responded appropriately ($\beta = 0.12$, $SE = 0.07$, $p = 0.047$), (2) the restrictions are justified ($\beta = 0.33$, $SE = 0.07$, $p < 0.001$), (3) the pandemic has been underplayed ($\beta = 0.36$, $SE = 0.09$, $p < 0.001$), and (4) stricter measures are needed to combat the virus ($\beta = 0.30$, $SE = 0.10$, $p < 0.001$).

Table 3. *Correlations among study variables.*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	--																				
2	.41**	--																			
3	.12	.35**	--																		
4	-.01	.30**	.29**	--																	
5	-.30**	.10	.20**	.62**	--																
6	-.10	.15*	.19**	.61**	.63**	--															
7	.52**	.28**	.06	.08	-.18**	-.02	--														
8	.28**	.14*	.11	-.09	-.20**	-.11	.55**	--													
9	.58**	.30**	.13*	.05	-.22**	-.04	.57**	.32**	--												
10	.57**	.26**	.11	-.04	-.25**	-.12	.66**	.47**	.73**	--											
11	-.07	.12	.04	.12	.12*	-.04	-.26**	-.16*	-.16*	-.36**	--										
12	-.37**	-.12	-.04	.12	.33**	.20**	-.39**	-.21**	-.39**	-.56**	.57**	--									
13	-.57**	-.21**	-.05	.17**	.36**	.20**	-.46**	-.27**	-.68**	-.67**	.32**	.56**	--								
14	-.58**	-.25**	-.06	.12*	.30**	.15*	-.42**	-.28**	-.66**	-.65**	.31**	.55**	.90**	--							
15	-.27**	-.13*	.03	.18*	.24**	.02	-.21*	-.11	-.33**	-.32**	.19*	.36**	.38**	.36**	--						
16	.56**	.31**	.12*	.08	-.21*	-.17*	.32**	.34**	.35**	.36**	.07	-.14*	-.35**	-.33**	.28**	--					
17	-.14*	-.15*	.10	.20*	.26**	.10	-.32**	-.11	-.28**	-.33**	.28**	.43**	.37**	.38**	.55**	.17*	--				
18	-.32**	-.13*	.11	.15*	.22*	.14*	-.24**	-.14*	-.36**	-.42**	.28**	.47**	.50**	.49**	.44**	-.11	.44**	--			
19	.51**	.33**	.21*	-.01	-.27*	-.14*	.55**	.40**	.47**	.48**	-.07	-.24**	-.41**	-.38**	-.12	.51**	-.16*	.10	--		
20	-.25**	-.07	-.13*	.09	.16*	.10	-.18*	-.16*	-.34**	-.39**	.12*	.26**	.32**	.32**	.14*	-.14*	.13*	.17*	-.26**	--	
21	.07	.12	.05	.04	-.03	-.10	.08	.06	.02	.03	-.03	-.12*	-.11	-.11	.17*	.10	.003	.04	.02	.28**	--
22	-.01	.16*	.02	.28**	.29**	.20*	.04	.03	.01	.04	.09	.18*	.11	.09	.18*	.04	.26**	.18*	-.05	.06	.01

Note. 1 = political orientation; 2 = tradition; 3 = conformity; 4 = security; 5 = universalism; 6 = benevolence; 7 = COVID hoax; 8 = COVID no restrictions needed; 9 = COVID exaggerated; 10 = COVID restrictions unwarranted; 11 = COVID response appropriate; 12 = COVID measures justified; 13 = COVID underplayed; 14 = COVID stricter measures; 15 = liberal news; 16 = conservative news; 17 = neutral news; 18 = liberal memes; 19 = conservative memes; 20 = perceived vulnerability to disease; 21 = disgust sensitivity scale; 22 = disgust/emotional reappraisal. * $p < 0.05$, ** $p < 0.001$

Hypothesis 3

Correlational analyses (Table 3) indicated relationships between political orientation and the endorsement of news sources and political memes. Political orientation was positively associated with conservative news ($r = 0.56$, $p < 0.001$) and conservative memes ($r = 0.51$, $p < 0.001$), and negatively associated with liberal news ($r = -0.27$, $p < 0.001$), neutral news ($r = -0.14$, $p = 0.03$), and liberal memes ($r = -0.32$, $p < 0.001$). These results suggest that individuals who identified as more conservative were more likely to endorse conservative news sources and political memes, while individuals who identified as more liberal were more likely to endorse liberal news sources and political memes.

Analyses also found a relationship between information exposure and perceptions of the COVID-19 pandemic. For instance, individuals who endorsed liberal memes ($r = 0.50$, $p < 0.001$) and news sources ($r = 0.38$, $p < 0.001$) were significantly more likely to claim that the pandemic had been underplayed and were significantly less likely to claim that it was a hoax ($r = -0.21$ – -0.24, $p = 0.001$ – 0.002). Additionally, individuals who endorsed conservative memes ($r = 0.55$, $p < 0.001$) and news sources ($r = 0.32$, $p < 0.001$) were significantly more likely to claim that the pandemic was a hoax and were significantly less likely to claim that it was underplayed ($r = -0.35$ – -0.41, $p < 0.001$).

Therefore, a series of 20 mediated regressions were conducted to examine the hypothesis that individuals would engage in selective exposure to confirm their beliefs about the COVID-19 pandemic. Although conducting 20 separate mediation models greatly increases the chance of researcher error, I believe that the nature of the current study permits the use of such analyses. Since the COVID-19 pandemic is a current event

that is rapidly developing, not much is known about political perceptions of the pandemic and associated psychological characteristics. Therefore, analyses are exploratory in nature and permit the use of exploratory measures in this hypothesis and the remaining hypotheses. However, further research should be conducted to replicate these findings.

For hypothesis three, it was expected that information exposure would mediate the relationship between political ideology and beliefs about the pandemic. As illustrated in Table 4, political orientation was inserted as the independent variable in all mediation models. Additionally, the five information exposure variables were alternated as mediators, and the four most extreme pandemic belief questions were alternated as dependent variables.

The results indicated support that selective exposure mediated the relationship between political ideology and pandemic beliefs. As depicted in Tables 4-5, endorsement of conservative news and memes more strongly mediated the relationships between political ideology and the beliefs that COVID-19 is a hoax and that no restrictions are needed, while endorsement of liberal news and memes more strongly mediated the relationship between political ideology and the beliefs that COVID-19 was underplayed and that more restrictions are needed to combat the virus.

Table 4. *Standardized beta coefficients and standard errors for indirect effect of selective exposure mediations (political orientation)*

	Liberal Memes	Liberal News	Neutral News	Conservative Memes	Conservative News
COVID Hoax	0.014 (0.012)	0.012 (0.010)	0.019* (0.011)	0.111** (0.023)	0.011 (0.023)
COVID No Restrictions	0.011 (0.013)	0.005 (0.011)	0.005 (0.006)	0.101** (0.025)	0.082** (0.027)
COVID Underplayed	-0.064** (0.017)	-0.037* (0.013)	-0.022* (0.013)	-0.047* (0.020)	-0.016 (0.022)

COVID More Restrictions	-0.062** (0.017)	-0.034* (0.012)	-0.023* (0.013)	-0.033 (0.020)	-0.002 (0.022)

Note. * $p < 0.05$, ** $p < 0.001$

Table 5. *R^2 values for indirect effect of selective exposure mediations (political orientation)*

	Liberal Memes	Liberal News	Neutral News	Conservative Memes	Conservative News
COVID Hoax	0.277	0.277	0.334*	0.378**	0.273
COVID No Restrictions	0.083	0.081	0.085	0.168**	0.127**
COVID Underplayed	0.442**	0.380*	0.414*	0.345*	0.328
COVID More Restrictions	0.440**	0.379*	0.429*	0.343	0.334

Note. * $p < 0.05$, ** $p < 0.001$

Hypothesis 4

Hypothesis 4 stated that conservatives would be more likely to have a more sensitive behavioral immune system and would be less likely to reappraise their emotions and feelings of disgust than liberals. Analyses indicated that perceived vulnerability to disease was negatively associated with political orientation ($r = -0.25$, $p < 0.001$). This finding indicates the opposite of what was predicted: individuals who identified as more conservative were less likely to believe that they were vulnerable to infectious diseases such as COVID-19. There was no relationship between political orientation with either disgust sensitivity or disgust and emotional reappraisal. The results also found that valuing tradition was positively associated with disgust and emotional reappraisal ($r = 0.16$, $p = 0.01$), while valuing universalism was positively associated with both disgust and emotional reappraisal ($r = 0.29$, $p < 0.001$) and perceived vulnerability to disease ($r = 0.16$, $p = 0.01$)

Despite the only expected finding being the relationship between universalism and disgust and emotional reappraisal, mediation analyses were still conducted to determine if BIS sensitivity and disgust reappraisal independently mediated the relationship between political ideology and perceptions of the pandemic. Separate mediation analyses were conducted with political orientation, tradition, and universalism as independent variables. Additionally, the two measures of BIS sensitivity and disgust and emotional reappraisal were alternated as mediators, and the four most extreme pandemic belief items were alternated as dependent variables. Results of the meditation analyses are depicted in Tables 6-11. The only significant mediations existed when perceived vulnerability to disease was tested as a mediator in the relationship between political ideology (political orientation and universalism) and the beliefs that the COVID-19 pandemic was underplayed and that more restrictions are needed.

Table 6. *Standardized beta coefficients and standard errors for indirect effect of BIS sensitivity/disgust reappraisal mediations (political orientation)*

	PVD	DSS	DER
COVID Hoax	0.008 (0.009)	0.002 (0.003)	-0.0003 (0.002)
COVID No Restrictions	0.013 (0.011)	0.001 (0.003)	-0.0003 (0.002)
COVID Underplayed	-0.027* (0.011)	-0.003 (0.004)	-0.0008 (0.004)
COVID More Restrictions	-0.026*(0.011)	-0.003 (0.004)	-0.0006 (0.003)

Note. * $p < 0.05$, ** $p < 0.001$

Table 7. *R^2 values for indirect effect of BIS sensitivity/disgust reappraisal mediations (political orientation)*

	PVD	DSS	DER
COVID Hoax	0.275	0.274	0.274
COVID No Restrictions	0.087	0.082	0.081
COVID Underplayed	0.359*	0.330	0.337
COVID More Restrictions	0.364*	0.339	0.341

Note. * $p < 0.05$, ** $p < 0.001$

Table 8. *Standardized beta coefficients and standard errors for indirect effect of BIS sensitivity/disgust reappraisal mediations (tradition)*

	PVD	DSS	DER
COVID Hoax	0.006 (0.006)	0.004 (0.005)	-0.00005 (0.006)
COVID No Restrictions	0.005 (0.006)	0.003 (0.005)	0.001 (0.006)
COVID Underplayed	-0.012 (0.012)	-0.004 (0.005)	0.013 (0.008)
COVID More Restrictions	-0.011 (0.011)	-0.004 (0.005)	0.012 (0.008)

Note. * $p < 0.05$, ** $p < 0.001$

Table 9. *R^2 values for indirect effect of BIS sensitivity/disgust reappraisal mediations (tradition)*

	PVD	DSS	DER
COVID Hoax	0.106	0.083	0.079
COVID No Restrictions	0.040	0.022	0.020
COVID Underplayed	0.141	0.049	0.069
COVID More Restrictions	0.152	0.066	0.081

Note. * $p < 0.05$, ** $p < 0.001$

Table 10. *Standardized beta coefficients and standard errors for indirect effect of BIS sensitivity/disgust reappraisal mediations (universalism)*

	PVD	DSS	DER
COVID Hoax	-0.016 (0.010)	-0.001 (0.004)	0.019 (0.014)
COVID No Restrictions	-0.012 (0.009)	-0.0008 (0.002)	0.018 (0.014)
COVID Underplayed	0.027* (0.013)	0.001 (0.004)	-0.0003 (0.012)
COVID More Restrictions	0.027* (0.013)	0.002 (0.005)	-0.0006 (0.013)

Note. * $p < 0.05$, ** $p < 0.001$

Table 11. *R^2 values for indirect effect of BIS sensitivity/disgust reappraisal mediations (universalism)*

	PVD	DSS	DER
COVID Hoax	0.055	0.037	0.041
COVID No Restrictions	0.053	0.041	0.048
COVID Underplayed	0.197*	0.136	0.127
COVID More Restrictions	0.161*	0.099	0.089

Note. * $p < 0.05$, ** $p < 0.001$

Discussion

I examined the associations between political ideology, perceptions of the COVID-19 pandemic, and information exposure. Traditional social psychological research would suggest that both liberals and conservatives would be equally concerned about the pandemic. Conservatives generally prefer a traditional social structure that promotes security, ingroup cohesion, and obedience to authority (Altemeyer, 1988; Harrington & Gelfand, 2014; Triandis, 1994). Additionally, conservatives are generally more easily disgusted than liberals (Inbar et al., 2008; Inbar et al., 2009), and have a more sensitive behavioral immune system (BIS) that acts as an evolutionally mechanism to avoid potential stimuli that could lead to disease contraction (Curtis et al., 2004; Schaller, 2006; Terrizzi et al., 2013). Therefore, these patterns would suggest that conservatives would be concerned about the COVID-19 pandemic due to its potential impact on the traditional social structure.

Conversely, research indicates that liberals generally prefer an egalitarian social structure where all members of society are viewed as equal (Harrington & Gelfand, 2014). Additionally, liberals are more likely to trust scientists and mainstem media outlets that relay scientific information (Gauchat, 2012; Iyengar & Hahn, 2009; Nisbet et al., 2015). Therefore, it would be expected that liberals would be as equally concerned as conservatives about the COVID-19 pandemic due to its potential impact on an egalitarian social structure.

However, consistent with polling research conducted throughout the pandemic (Pew Research Center, 2020), I found that many of the traditional political patterns were not present during the COVID-19 pandemic. The results suggest that more conservative individuals were more likely to (1) consider the pandemic to be a hoax, (2) believe the pandemic is real but has been exaggerated, and (3) believe that no restrictions are needed or that existing restrictions should be eliminated. Additionally, more liberal individuals were more likely to (1) consider the pandemic to have been underplayed, (2) believe that society's response to the virus was justified, and (3) support existing prevention measures and the use of stricter measures if needed. I examined potential mechanisms that could explain the reported political differences in perceptions of the COVID-19 pandemic.

Selective Exposure

One potential mechanism that I hypothesized would explain the relationship between political ideology and perceptions of the COVID-19 pandemic was selective exposure to information. Humans are exposed to a large quantity of information, and this pattern has increased in recent decades due to improvements in communication technology (Pew Research Center, 2012; Pew Research Center, 2014). As it would be time consuming to analyze all information that is available when attempting to form a conclusion on a topic, individuals often engage in cognitive biases that allow them to reach a conclusion with minimal cognitive effort. (LeDoux, 1998; MacNamara et al., 2013; Tversky & Kahneman, 1974). One such cognitive bias is confirmation bias, in which individuals expose themselves to information that confirms their beliefs and ignore information that contradicts their beliefs (Frimer et al., 2017; Hart et al., 2009; Wason, 1960).

Previous research suggests that individuals engage in confirmation bias when searching for information on a variety of political and scientific topics (Guess et al., 2018; Iyengar et al., 2008; Knobloch-Westerwick et al., 2025; Knobloch-Westerwick et al., 2020; Lavine et al., 2005), and that individuals expose themselves to news sources that align with their political beliefs (Frimer et al., 2017; Iyengar & Hahn, 2009; Pfau et al., 2007). The current study indicated similar patterns. For example, more conservative individuals were more likely to endorse conservative news sources and political memes that supported a conservative view of the pandemic, while more liberal individuals were more likely to endorse liberal news sources and political memes that supported a liberal view of the pandemic.

Additionally, the results suggest that information exposure significantly mediated the relationship between political ideology and perceptions of the COVID-19 pandemic. Specifically, endorsement of conservative news sources and political memes mediated the relationship between political ideology (political orientation) and the beliefs that COVID-19 is a hoax and that restrictions are unnecessary to combat the virus. Additionally, endorsement of liberal news sources and political memes mediated the relationship between political ideology and the beliefs that the COVID-19 pandemic was underplayed and that more restrictions are needed. These results indicate that individuals often engage in confirmation bias to confirm their political beliefs (Guess et al., 2018; Iyengar et al., 2008; Knobloch-Westerwick et al., 2025; Knobloch-Westerwick et al., 2020; Lavine et al., 2005), and that the information that an individual exposes themselves to has a significant impact on their overall perception of the COVID-19 pandemic.

One potential source of information that conservatives could have exposed themselves to that would allow them to confirm their beliefs about the COVID-19 pandemic is President Trump. Since President Trump was the highest elected Republican during most of the COVID-19 pandemic, it is likely that many conservatives would align with his beliefs on the virus. Throughout the pandemic, President Trump downplayed the pandemic and was skeptical of scientific data that detailed the severity of the virus (e.g., Egan, 2020b). Therefore, conservatives who were already skeptical of the virus may have confirmed their beliefs further by listening to President Trump.

An unexpected finding with the information exposure variables is the relationships between neutral news sources, political orientation, and COVID-19 perceptions. Since exposure to liberal and conservative news sources are associated with a corresponding political orientation and perception of the COVID-19 pandemic, it would be expected that exposure to neutral news sources would not be associated with political orientation or COVID-19 perceptions. However, as indicated by Table 3, exposure to neutral news sources was associated with a liberal political ideology (lower in conservative political orientation and tradition, and higher in universalism) and liberal beliefs about the COVID-19 pandemic (such as that the pandemic had been underplayed). This could indicate that the sources that were considered to be neutral by this study are not considered to be neutral by those that view them. Additionally, it is also possible that liberal participants were more likely to view sources that do not strictly align with their political beliefs, and that the reported associations between neutral news sources and COVID-19 perceptions are a result of those with liberal political beliefs being more

likely to view them, rather than neutral sources being more likely to persuade individuals to hold liberal beliefs about the pandemic.

BIS Sensitivity/Disgust Reappraisal

In addition to information exposure, two other mechanisms were examined as potential mediators and moderators of the relationship between political ideology and beliefs about the COVID-19 pandemic. First, it was hypothesized that behavioral immune system (BIS) sensitivity and disgust and emotional reappraisal would independently mediate the relationship between political ideology and COVID-19 perceptions. Past research suggests that conservatives are more easily disgusted by germs and have a more sensitive BIS than liberals (Curtis et al., 2004; Inbar et al., 2008; Inbar et al., 2009; Schaller, 2006; Terrizzi et al., 2013). Additionally, liberals have been found to be more likely than conservatives to think about what caused them to feel disgusted and modify the stimuli that they attribute their disgust to (Feinberg et al., 2013). Given that polling research found that conservatives were less concerned about the COVID-19 pandemic (Pew Research Center, 2020), it was hypothesized that conservatives would attribute their initial disgust in the pandemic towards their mistrust in science and the media, which they would not reappraise and form the conclusion that the virus was a hoax.

However, analyses of the present data indicated only partial support for this hypothesis. As expected, individuals who valued universalism were more likely to display higher levels of disgust and emotional reappraisal. However, contrary to traditional social psychological research, the results suggest that individuals who were more conservative had a less sensitive BIS, in that they were less likely to perceive themselves to be vulnerable to infectious diseases such as COVID-19. Additionally,

valuing tradition was found to be positively associated with disgust and emotional reappraisal, while valuing universalism was found to be associated with higher levels of perceived vulnerability to disease, both of which were in the opposite direction of what was expected.

Additionally, analyses found that the only significant mediations were when perceived vulnerability to disease (PVD) was examined as a mediator between political ideology (political orientation and universalism) and the beliefs that the COVID-19 pandemic had been underplayed and that more restrictions are needed to combat the virus. The results indicated that higher levels of PVD resulted in a negative relationship between a conservative political orientation and the perception that the COVID-19 pandemic was underplayed. Therefore, the meditations were in the expected direction, despite correlational analyses finding a negative relationship between political ideology and PVD.

Several factors could explain the unexpected associations between BIS sensitivity, disgust and emotional reappraisal, political ideology, and perceptions of the COVID-19 pandemic. The tested hypotheses were based on the findings of past social psychological research that indicate psychological differences between individuals with different political orientations, with the assumption that these patterns remain consistent across various circumstances. However, as previously mentioned, psychological processes are complex and context dependent, and are subject to change during major events such as the COVID-19 pandemic (Rosenfeld et al., 2020). The associations reported by previous studies could also have been weak to begin with, allowing for contextual factors to be a major extraneous variable in their expression.

Since past research indicates that conservatives have a more sensitive behavioral immune system and are more easily disgusted by germs (Curtis et al., 2004; Inbar et al., 2008; Inbar et al., 2009; Schaller, 2006; Terrizzi et al., 2013), I assumed that this factor was still present during the COVID-19 pandemic, despite evidence suggesting that conservatives were less fearful of the pandemic (Pew Research Center, 2020). Since conservatives are also less likely to reappraise their initial feelings of disgust (Feinberg et al., 2013), I assumed that they attributed their initial feelings of disgust in the pandemic to another factor (distrust in the media and science), which resulted in conservatives being less concerned about the pandemic. However, it is also possible that the contextual factors of the COVID-19 pandemic influenced the direct relationship between political ideology and PVD. Therefore, conservatives may be less concerned about the COVID-19 pandemic because environmental factors led them to feel less vulnerable to infectious diseases during the pandemic than in other points in history. It is possible that the messages distributed by conservative news sources could have impacted this relationship. However, more research is needed to examine this and other contextual factors that could have led to a negative relationship between political ideology and PVD.

Another factor that could have influenced these results may be evident in the fact that disgust and emotional reappraisal were positively associated with both valuing tradition (a conservative value) and universalism (a liberal value), despite evidence suggesting that liberals are more likely to reappraise negative feelings of disgust (Feinberg et al., 2013). The results of this study suggest that individuals who value these factors are equally as likely to engage in disgust and emotional reappraisal. This finding could have been influenced by the severity and media coverage of the COVID-19

pandemic. Past research examining disgust and emotional reappraisal has focused mainly on disgusting smells and intuitive beliefs of immoral acts (Feinberg et al., 2013), both of which do not have a major impact on the life of the observer forming the belief or society.

It is possible that the potential impact of the COVID-19 pandemic could have influenced conservatives who highly value tradition to engage in disgust and emotional reappraisal so that they can correctly identify the stimuli that is most threatening to their desired traditional social structure. It was originally hypothesized that conservatives would attribute their initial feelings of disgust of the pandemic towards their mistrust in the media, which they would not reappraise and form the belief that the pandemic is a hoax. However, it is also possible that conservatives were initially concerned about the COVID-19 pandemic, and that a contextual factor (such as exposure to conservative news sources) caused conservatives to reappraise their feelings of disgust of the pandemic towards their mistrust in the media. In this case, disgust reappraisal would have influenced conservatives to perceive the media and COVID-19 restrictions as the biggest threat to a traditional social structure, rather than the virus itself. However, more research is needed to test this assumption.

Limitations and Future Directions

The current study contains several limitations and factors that could have influenced the results and that should be addressed by future research. First, this study relied on the use of single informant self-report measures. Self-report measures can be subject to bias when participants are asked questions of a personal nature that reflect their attitudes of events. Some individuals may be influenced to answer questions in ways that

would make them appear socially desirable, with or without their awareness. Although I attempted to address for this limitation by randomizing the order in which participants viewed the scales so that they could not guess the nature of the study, it is possible that some participants engaged in the social desirability bias. Future studies should include measures to address this possibility.

Second, this study is limited due to its presentation format and timing. For example, the Death Thought Accessibility Scale (Greenberg et al., 1994) was originally placed at the beginning of the study to mortality salience created by the COVID-19 pandemic, but was later removed from analyses as it was determined to be an insufficient measure of the concept. The influence of this scale on the mindset of the participants could still have been present in the data as it could have primed participants to engage in certain unexpected response patterns. Additionally, the survey took an average of 27 minutes to complete, which could have created a fatigue effect. Lastly, aside from the Death Thought Accessibility Scale and the demographic section, participants completed the survey in random order. The randomization pattern was created to decrease the likelihood that participants would guess the nature of the study, and could reduce the impact of fatigue on the long survey format. However, the randomization also limits the ability to determine if participant responses were influenced Death Thought Accessibility Scale. Future research should be conducted that addresses these issues.

Given that the COVID-19 pandemic is a novel situation, very little is known about political differences in COVID-19 perceptions and the psychological associations influenced by the virus. Additionally, perceptions of the COVID-19 pandemic could have changed over time due to the dynamic context in which it occurred. This study was

conducted during the final few months of the 2020 presidential election, which was highly polarized. Additionally, although a vaccine was not created by the completion of this study, the status of the vaccine and opinions about the vaccine differed throughout the study period. Both of these factors could have influenced the results of this study, and this is study is limited in that I measured participants' perceptions of a novel current event at a single time point rather than using longitudinal or repeated measure designs. Future research should be conducted to determine if perceptions of the pandemic changed over time.

Lastly, given that very little is known about perceptions of the COVID-19 pandemic, an exploratory design was necessary to further our understanding. For example several mediations were conducted on the final hypotheses. Although this should not be viewed as a limitation and will be addressed by future confirmatory analyses, the use of such measures limits confidence in our results. For example, although there was much consistency in the mediations that measured selective exposure, conducting a large number of mediations increases the chance of obtaining results due to type 1 error. Additionally, since data was collected at a single time point, I am limited in my ability to determine the directionality of the mediation analyses. For example, although I assumed that political ideology impacted information exposure which in turn impacted pandemic perceptions, it is possible that that an individual's political ideology was instead determined by the information that they exposed themselves to. Therefore, future studies should attempt to replicate these findings to ensure that researchers have an accurate understanding of the psychological associations of perceptions of the COVID-19 pandemic.

Conclusion

Given that polling during the COVID-19 pandemic indicated that conservatives were more likely to downplay the pandemic and liberals were more likely to exaggerate it, and that these patterns are unexpected based on past research, the current study examined potential mechanisms that could explain the relationship between political ideology and perceptions of the pandemic. The results of this study found that selective exposure to attitude consistent political information mediated the relationship, indicating that the information that an individual exposes themselves to has a significant impact on their overall perception of the COVID-19 pandemic. These results are important as they further our understanding of the mechanisms that influence perceptions of major worldwide events and how these perceptions influence an individual's behavior. Although this study lacks the ability to infer causation, knowledge gained from this line of research could potentially be used to prevent political polarization and the spread of misinformation on major scientific phenomenon.

Appendix 1: Survey Questions

COVID-19 Beliefs

Briefly describe your perception of the COVID-19 pandemic. The following questions are suggestions to aid in your response.

1) Do you believe that that society's reaction to the virus was appropriate overexaggerated, or underexaggerated?
2) Do you fear the virus? Why do you think society should fear or not fear the virus?
3) What measures do you believe are appropriate to combat the virus?
4) Who is to blame for the severity of the virus and the economic repercussions?

Please read the following statements and indicate how much they match your beliefs about the COVID-19 pandemic on a scale of 1 (Strongly Disagree) to 7 (Strongly Agree).

1) The pandemic is a hoax designed to instill fear and manipulate society.
2) COVID-19 doesn't exist and no restrictions should have been imposed on society.
3) The pandemic is real but the threat of the virus has been exaggerated.
4) The measures taken were unwarranted and any existing regulations should be scaled back.
5) The pandemic is real and responded appropriately.
6) All measures that have been taken were justified and based on scientific data.
7) The pandemic is real but was not taken seriously enough.
8) Stricter mandates should have been implemented to combat the virus.

Throughout most of the pandemic Dr. Anthony Fauci claimed that Hydroxychloroquine is not an effective cure against COVID-19 and may cause negative side effects or death. However, in late July a group of Doctors led by Dr. Stella Immanuel claimed that Hydroxychloroquine cured all of their patients of COVID-19. Who do you trust more, and why?

Information Seeking: News Source Endorsement

1) Where did you receive most of your information regarding COVID-19?

2) Please indicate how likely you would trust the following information sources regarding COVID-19 information.

	1 (Very Unlikely)	2	3	4	5	6	7 (Very Likely)	I am unaware of this source
Liberal Sources								
NBC and MSNBC								
BBC								
New York Times								
ABC								
CNN								
Washington Post								
CBS								
The Young Turks (TYT)								
KY Governor Andy Beshear								
NPR								
Conservative Sources								
Fox News								
President Trump								
White House Coronavirus Task Force								
One American News Network (OAN)								
The Daily Wire (e.g., Ben Shaprio)								
Rush Limbaugh Show								
PragerU								
The Daily Caller								
Dr. Stella Immanuel								
Neutral Sources								
Dr. Anthony Fauci								
Local Health Departments								
Doctors/Health Professionals								
Center for Disease Control								
World Health Organization								

Perceived Vulnerability to Disease (PVD) Scale

	1 (Strongly Disagree)	2	3	4	5	6	7 (Strongly Agree)
Perceived Infectability Subscale							

In general, I am very susceptible to colds, flu and other infectious diseases.							
I am unlikely to catch a cold, flu or other illness, even if it is 'going around'.							
If an illness is 'going around', I will get it.							
My immune system protects me from most illnesses that other people get.							
I am more likely than the people around me to catch an infectious disease.							
My past experiences make me believe I am not likely to get sick even when my friends are sick.							
I have a history of susceptibility to infectious disease.							
Germ Aversion Subscale							
I prefer to wash my hands pretty soon after shaking someone's hand.							
I avoid using public telephones because of the risk that I may catch something from the previous user.							
I do not like to write with a pencil someone else has obviously chewed on.							
I dislike wearing used clothes because you do not know what the last person who wore it was like.							
I am comfortable sharing a water bottle with a friend.							
It really bothers me when people sneeze without covering their mouths.							
It does not make me anxious to be around sick people.							
My hands do not feel dirty after touching money.							

Disgust Sensitivity Scale (DSS)

Please choose true or false.

	True	False
I might be willing to try eating monkey meat, under some circumstances.		
It would bother me to see a rat run across my path in a park.		
Seeing a cockroach in someone else's house doesn't bother me.		
It bothers me to hear someone clear a throat full of mucus.		
If I see someone vomit, it makes me sick to my stomach.		
It would bother me to be in a science class, and see a human hand preserved in a jar.		
It would not upset me at all to watch a person with a glass eye take the eye out of the socket.		
It would bother me tremendously to touch a dead body.		
I would go out of my way to avoid walking through a graveyard.		
I never let any part of my body touch the toilet seat in a public washroom.		
I probably would not go to my favorite restaurant if I found out that the cook had a cold.		
Even if I was hungry, I would not drink a bowl of my favorite soup it if had been stirred with a used but thoroughly washed flyswatter.		
It would bother me to sleep in a nice hotel room if I knew that a man had died of a heart attack in that room the night before.		

Please rate how disgusting you would find the following experiences

	Not	Slightly	Very
If you see someone put ketchup on vanilla ice cream and eat it.			
You are about to drink a glass of milk when you smell that it is spoiled.			
You see maggots on a piece of meat in an outdoor garbage pail.			
You are walking barefoot on concrete and step on an earthworm.			
While you are walking through a tunnel under a railroad track, you smell urine.			
You see a man with his intestines exposed after an accident.			
Your friend's pet cat dies and you have to pick up the dead body with your bare hands			
You accidentally touch the ashes of a person who has been cremated.			
You take a sip of soda and realize that you drank from the glass that an acquaintance of yours had been drinking from.			
You discover that a friend of yours changes underwear only once a week.			
A friend offers you a piece of chocolate shaped like dog-doo.			
As part of a sex education class, you are required to inflate a new lubricated condom, using your mouth.			

Disgust/Emotion Reappraisal Scale

	1 (Strongly Disagree)	2	3	4	5	6	7 (Strongly Agree)

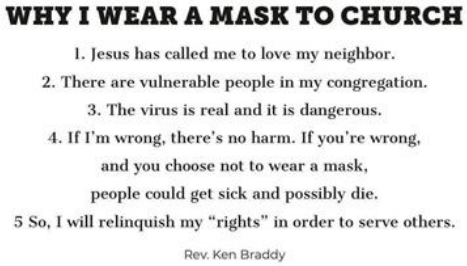
When I'm faced with a disgusting situation, I make myself think about it in a way that helps me not feel disgusted.							
When I want to feel less disgust, I change the way I'm thinking about the situation.							
When I want to feel less negative emotion, I change the way I'm thinking about the situation.							
When I want to feel less anger, I change the way I'm thinking about the situation.							

Information Seeking: Political Meme/News Story Endorsement

Please indicate how likely you would trust or share the following political memes and news stories on your social media page using a scale of 1(Not Very Likely) to 7(Very Likely)

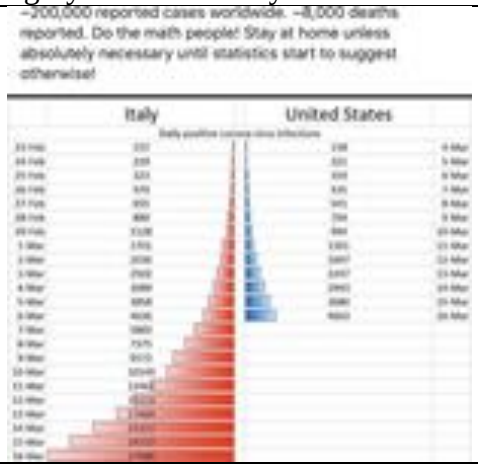
Liberal Memes	
Category: Hydroxychloroquine Effectiveness	
	
Category: Mask/No Mask Shaming	
	
Category: Open Schools?	

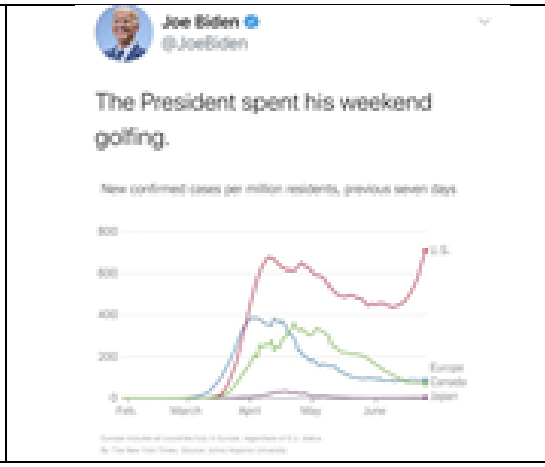
Category: Religious Memes



Some people of faith have said they don't need to wear a mask because God will protect them from COVID 19. However, if you believe in God, you understand that God gave you a brain — an intellect capable of reasoning — and He expects you to exercise that reasoning to protect yourself. If you believe in Him, you understand that He inspired learned medical scientists and is continuing to give them greater and greater inspiration regarding protection from and treatment of this virus. Please everyone, use your God given brain to protect yourself, your family members and others around you.

Category: Virus Severity





Category: Prevention Effectiveness

Category: Vaccine Personal Support

Category: Vaccine Progress/Needed based on Science

Category: COVID Disappear?

Category: Lockdown Support

Conservative Memes

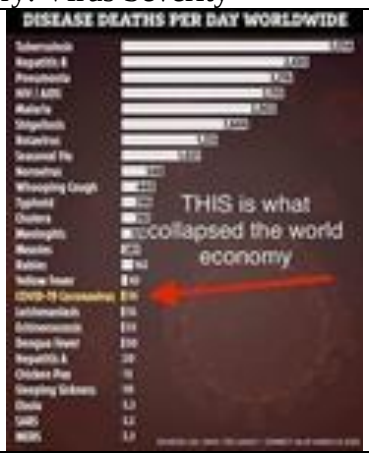
Category: Hydroxychloroquine Effectiveness

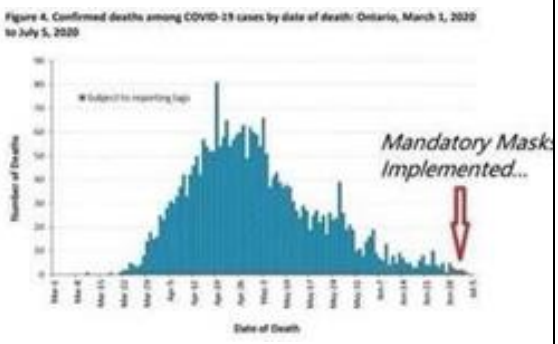
Category: Mask/No Mask Shaming

Category: Open Schools?

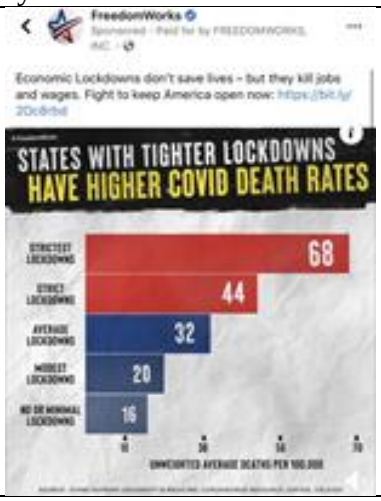
Category: Religious Memes

Category: Virus Severity



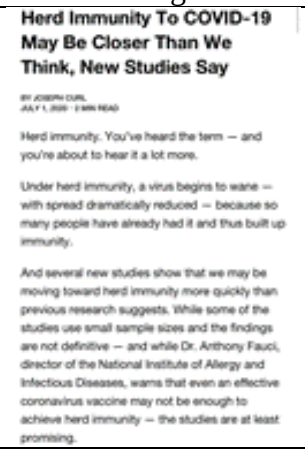


Category: Prevention Effectiveness



Category: Vaccine Personal Support

Category: Vaccine Progress/Needed based on Science



Herd Immunity To COVID-19 May Be Closer Than We Think, New Studies Say

BY JOSEPH DURL
JULY 1, 2020 · 3 MIN READ

Herd immunity. You've heard the term — and you're about to hear it a lot more.

Under herd immunity, a virus begins to wane — with spread dramatically reduced — because so many people have already had it and thus built up immunity.

And several new studies show that we may be moving toward herd immunity more quickly than previous research suggests. While some of the studies use small sample sizes and the findings are not definitive — and while Dr. Anthony Fauci, director of the National Institute of Allergy and Infectious Diseases, warns that even an effective coronavirus vaccine may not be enough to achieve herd immunity — the studies are at least promising.

Category: COVID Disappear?

NEWS

Coronavirus is getting weaker, could disappear without vaccine, doctor suggests

Category: Lockdown Support

CORONAVIRUS DEATHS

DEMOCRAT STATES:
New York - 23,083 (Status – CLOSED)
New Jersey – 10,843 (Status – CLOSED)
Pennsylvania – 4624 (Status – CLOSED)
Michigan – 5129 (Status – CLOSED)
Total Dead – 43,679
Total Population – 51.11 million

REPUBLICAN STATES:
Florida - 2144 (Status – OPEN)
Texas – 1369 (Status – OPEN)
Georgia – 1754 (Status – OPEN)
Ohio – 1720 – (Status – OPEN)
Total Dead – 6987
Total Population – 72.79 million

***More people have died of coronavirus in NY & NJ nursing homes than all the people combined in FL, TX, GA, OH.**

Demographic

1) What is your current age? _____

2) What is your biological sex?
   Male Female

3) What is your year in college?

Freshman/First Year Sophomore/Second Year
Junior/Third Year Senior/Fourth Year Other:_____

4) What is your race/ethnicity?
Caucasian African American African Native American Hispanic Asian/Pacific Islander
Bi/Multi-Racial Middle Eastern Other:_____

5) What is your political orientation?
1(Very Liberal) 2(Somewhat Liberal) 3(Moderately Liberal)
4(Moderate) 5(Moderately Conservative)
6(Somewhat Conservative) 7(Very Conservative)

Motivational Value Scale

Please indicate the extent to which the following principles guide your life.

	-1 (Opposed to my values)	0	1	2	3	4	5	6	7 (Very Important)
Tradition: Respect, commitment, and acceptance of the customs and ideas that traditional culture or religion provide.									
Conformity: Restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms.									
Security: Safety, harmony, and stability of society, of relationships, and of self.									
Universalism: Understanding, appreciation, tolerance, and protection for the welfare of all people and for nature.									
Benevolence: Preservation and enhancement of the welfare of people with whom one is in frequent personal contact.									

Appendix II: IRB Approval Letter

MURRAY STATE UNIVERSITY

Institutional Review Board

328 Wells Hall
Murray, KY 42071-3318
270-809-2916• msu.irb@murraystate.edu

TO: Sean Rife, Psychology

FROM: Jonathan Baskin, IRB Coordinator JB

DATE: 9/24/2020

RE: Human Subjects Protocol I.D. – IRB # 21-018

The IRB has completed its review of your student's Level 1 protocol entitled *Disgust Sensitivity and Information Availability*. After review and consideration, the IRB has determined that the research, as described in the protocol form, will be conducted in compliance with Murray State University guidelines for the protection of human participants.

The forms and materials that have been approved for use in this research study are attached to the email containing this letter. These are the forms and materials that must be presented to the subjects. Use of any process or forms other than those approved by the IRB will be considered misconduct in research as stated in the MSU IRB Procedures and Guidelines section 20.3.

Your stated data collection period is from 9/24/2020 to 9/23/2021.

If data collection extends beyond this period, please submit an Amendment to an Approved Protocol form detailing the new data collection period and the reason for the change.

This Level 1 approval is valid until 9/23/2021.

If data collection and analysis extends beyond this date, the research project must be reviewed as a continuation project by the IRB prior to the end of the approval period, 9/23/2021. You must reapply for IRB approval by submitting a Project Update and Closure form (available at murraystate.edu/irb). You must allow ample time for IRB processing and decision prior to your expiration date, or your research must stop until such time that IRB approval is received. If the research project is completed by the end of the approval period, then a Project Update and Closure form must be submitted for IRB review so that your protocol may be closed. It is your responsibility to submit the appropriate paperwork in a timely manner.

The protocol is approved. You may begin data collection now.

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